ABSTRACT

A double path microdrop optical biometric system comprises a micro container, a corner cube array, a collimator, a beam splitting device, a light source selector, a detector and a signal comparator unit. It utilizes the beam to penetrate a specimen with specific coloring agent twice. Then, the shade of the beam can be detected so that a signal comparator unit can calculate the absorptance. The required volume of the specimen used in the system is small. The precision will be doubled by the double path design. Its entire optic-electronic system is simple and at low cost. By using the LEDs, it can avoid the use of filter and solve the over-heating problem. Plus, it can execute many bio-chemical tests.